

Remarks/Arguments

This is a full and timely response to the Official Action mailed June 4, 2003. A Petition to extend the time for response for one (1) month, i.e., from September 4, 2003 to October 4, 2003 inclusive, is being submitted simultaneously herewith. Reexamination and reconsideration of this application in light of the forgoing amendments and the following remarks are respectfully requested.

Claims 1, 3, 22 and 23 have been amended. Claims 1 and 22 have been amended to more clearly point out the invention. Claims 3 and 23 have been amended to recite a more specific diameter range within the overall range of diameters for the bristles. Support for this is found throughout the specification, more particularly on page 12, line 26 to page 13, line 13. Non-elected claims 4-21 have been withdrawn. Thus, claims 1-3 and 22-25 are currently pending for the Examiner's consideration.

Election of Species

Applicants hereby affirm their provisional election of 22 May 2003 to prosecute the invention of Figures 9 and 9A, claims 1-3 and 22-25. Claims 4-21 are withdrawn from further consideration by the Examiner as being drawn to a non-elected invention.

Double Patenting Provisional Rejection

Claims 1 and 3 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 and 2 of copending Application No. 09/461,891. Applicants shall determine if a Terminal Disclaimer is necessary at the issuance of the aforementioned co-pending application. Accordingly, this provisional rejection should be withdrawn.

Claim Objections

In the Office Action, the Examiner objected to claims 1-3 and 22-25 because of various informalities. These informalities have been corrected by the present amendment. No new matter has been added.

Rejection Under 35 U.S.C. 102

Claims 1 and 3 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,963,046 to Eguchi.

Applicants respectfully traverse this rejection for at least the following reasons.

The present invention, according to claim 1, is directed to a toothbrush having a multiplicity of bristles, where each of the bristles have a diameter ranging from about 0.25 mm to about 0.60 mm and are individually embedded in the toothbrush head. Furthermore, the bristles are mutually spaced apart from one another by a distance ranging from about 0.5 times to about 10 times the diameter of the bristles. As well as being mutually spaced apart, the bristles are grouped in sections according to the diameter range, where each of the groups of bristles has varying diameters.

With respect to claim 3, one set of bristles may be arranged such that at least one section of the toothbrush head contains bristles having diameters ranging from about 0.35 mm to about 0.60 mm, while at least one other section of the toothbrush head contains another set of bristles having diameters ranging from about 0.25 mm to about 0.34 mm. In this manner, the toothbrush's bristles have varying diameters. This feature is important, in that it provides for different sensations for different parts of the mouth.

Eguchi discloses a toothbrush with bristles having tips of a spherical form and a container for fluid material for oral use, such as a medicinal material for oral health, a gingival-massaging medicine and a polishing material. Further, Eguchi discloses a toothbrush with varying heights for the bristles. However, Eguchi fails to include varying diameters for each bristle group. Furthermore, Eguchi's patent teaches bristles that are all the same in diameter. There is no discussion about the bristles having differing diameters. As pointed out by the Examiner in paragraph 4 on page 4 of the Office Action one bristle may be 0.35mm while another is also 0.35mm, which makes the diameters the same. Accordingly, Eguchi fails to teach or disclose each and every claimed limitation of Applicants' invention.

Additionally, Eguchi does not teach, disclose or suggest a toothbrush comprising groupings of bristles with diameters having differing ranges from 0.25mm-0.34mm to 0.35mm-0.60mm. At least in view of the following, claims 1 and 3 are allowable, and the 35 U.S.C. 102 rejection should be withdrawn.

A document can only anticipate a claim if the document discloses, explicitly or implicitly, each and every feature recited in the claim. Verdegall Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Since Eguchi fails to disclose, either explicitly or implicitly, at least the above-noted features recited in independent claim 1 or claim 3, Eguchi can not anticipate these claims.

Rejections Under 35 U.S.C. 103

Claims 1 and 3 have been rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent 4,804,004 to Taylor. Applicants respectfully traverse this rejection. Withdrawal of this rejection is respectfully requested.

The Office Action acknowledges that Taylor does not disclose or teach mutual spacing of the bristles of 0.5 to about 10 times the diameter of the bristle. However, the Office Action does allege that it appears to fall into that range in Fig. 3, and that it would have been obvious to space individual bristles in a range of about 0.5 to 10 times the diameter of the bristle. Applicants respectfully disagree.

Taylor's mascara brush does not disclose a mutual spacing between bristles because Taylor was not interested in providing an efficient tooth-cleaning device, which is itself easily cleaned and dries in a relatively short period of time. As discussed above, there is no awareness, interest or intention to mutually space the bristles for proper cleaning and drying of the bristles. Accordingly, no motivation is found in Taylor to adjust the spacing between the bristles to allow for proper self-cleaning and drying, and therefore no need is present for mutual spacing.

Accordingly, Taylor does not disclose, teach or suggest mutual spacing between bristles. Further, Taylor does not disclose, teach or suggest a toothbrush having groups of bristles with varying diameters for different parts of the mouth. At least in view of the foregoing, claims 1 and 3 are allowable. Withdrawal of this rejection is respectfully requested.

Claims 1-3, 22, 23 and 25 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,836,033 to Berge in view of U.S. Patent 4,963,046 to Eguchi. Applicants respectfully traverse this rejection. Withdrawal of this rejection is respectfully requested.

Berge discloses a toothbrush having a plurality of toothbrush tufts of bristles attached at their one end to the head of the toothbrush, the tufts of bristles have different heights depending on the location of each tuft, i.e. the inner rows and outer rows vary in height. Further, the outer bristle tufts are provided with free rounded end portions. Eguchi discloses a toothbrush with bristles having tips of a spherical form and a container for fluid material for oral use, such as a medicinal material for oral health, a gingival-massaging medicine and a polishing material. However, Berge and Eguchi both fail to teach or fairly suggest, either individually or in combination, a toothbrush comprising groupings of bristles with diameters having differing ranges from 0.25mm-0.34mm and 0.35mm-0.60mm. Further, Berge's toothbrush does not teach individually mounted bristles as stated in the Office Action, paragraph 6. As can be seen in Figs. 2 and 3, each bristle is a part of a tuft of bristles. Therefore, Berge and Eguchi do not render obvious Applicants' invention.

Berge and Eguchi, whether considered individually or in combination, do not teach or suggest all the components of independent claims 1 and 22, and therefore, do not render obvious Applicants invention. Further, it is respectfully submitted that dependent claims 2, 3, and 23-25 are allowable for the same reasons discussed above with regard to independent claims 1 and 22, as well as for the additional features they recite. Withdrawal of this rejection is respectfully requested.

Claims 1-3 and 22-25 have rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 301,644 to Thompson in view of U.S. Patent 4,963,046 to Eguchi.

Applicants respectfully traverse this rejection.

Thompson discloses a brush for brushing teeth having a plurality of bristles arranged on a head portion of the brush. Additionally, Thompson's brush includes rubber tongues fixed to the perimeter of the brush head. The rubber tongues were meant to prevent the interior bristles from bending outward, which renders the toothbrush unpleasant to use. (Col. 1, lines 11-24)

The Office Action states in Item 7, page 7, that Thompson discloses a toothbrush for brushing teeth and massaging gums. The Thompson toothbrush does not disclose any means for massaging gums, only means for preventing the bristles from outward bending and removal.

Like Eguchi, Berge and Taylor, Thompson fails to disclose, teach or suggest a toothbrush comprising groupings of bristles with diameters having differing ranges from 0.25mm-0.34mm and 0.35mm-0.60mm. Instead, Thompson discloses a brush that prevents its interior bristles from bending outward and removal thereof. Moreover, the bristle tufts and rubber tongues of Thompson do not constitute varying diameters of individually embedded bristles.

Accordingly, Thompson and Eguchi both fail to teach or disclose each and every claimed limitation as recited in independent claims 1 and 22. Additionally, Thompson is lacking in teaching several fundamental limitations of the present invention. Therefore, modifying Thompson in combination with Eguchi is still deficient in teaching the limitations not taught by Thompson, as discussed above. At least in view of the foregoing, independent claims 1 and 22 are allowable. Furthermore, claims 2 and 3 and 23-25, depending from claims 1 and 22, respectively, are allowable as depending from allowable base claims, as well as for the additional features they recite, particularly within the claimed combination. Withdrawal of this rejection is respectfully requested.

Claims 1-3, 22-25 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 1,251,250 to Libby in view of U.S. Patent 4,963,046 to Eguchi. Applicants respectfully traverse this rejection.

The Office Action acknowledges that Libby does not disclose a specific diameter for the first type of individually embedded bristles. However, the Office Action alleges that it would have been obvious to substitute the bristles of Libby for the ones that Eguchi teaches to provide an ideal specific diameter. Applicants respectfully disagree.

As stated above Eguchi does not disclose teach or suggest a toothbrush comprising groupings of bristles with diameters having differing ranges from 0.25mm-0.34mm and 0.35mm-0.60mm. Since Eguchi does not disclose, teach or suggest what Libby lacks, combining these references cannot provide the core features of the present invention, discussed above.

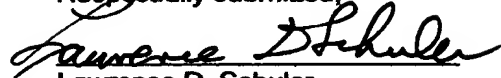
Accordingly, Libby in view of Eguchi does not disclose, teach or suggest a toothbrush of the present invention. At least in view of the foregoing, independent claims 1 and 22 are allowable. Furthermore, claims 2 and 3 and 23-25 are allowable as depending from allowable base claims 1 and 22, respectively, as well as the additional features they recite, particularly within the claimed combination. Withdrawal of this rejection is respectfully requested.

Conclusion

In view of the foregoing reasons, it is believed that the present application as amended herewith is in condition for allowance. Accordingly, favorable reconsideration of the amended claims in light of the above remarks and the issuance of a Notice of Allowance are respectfully solicited. If the Examiner wishes to discuss the captioned application or this Amendment, the Examiner is requested to call the undersigned Attorney at the phone number given below.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 10-0750.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Lawrence D. Schuler", written over a horizontal line.

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